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     FILE 'HCAPLUS' ENTERED AT 09:17:52 ON 04 AUG 2008
L1           512 S SCOLIOSIS OR SCOLIOTIC
L2        301681 S CROSSLINK?
L3           249 S SPINAL FUSION
L4            10 S L1 AND L2
L5             2 S L2 AND L3
L6             4 S L4 AND (PY<2002 OR AY<2002 OR PRY<2002)
L7             0 S L5 AND (PY<2002 OR AY<2002 OR PRY<2002)

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
     AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
     CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
     DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 09:58:27 ON 04 AUG 2008
               SEA SCOLIO? AND CROSSLINK?
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                 1   FILE AGRICOLA
                10   FILE BIOSIS
                 3   FILE BIOTECHNO
                 1   FILE CABA
                11   FILE CAPLUS
                 1   FILE CONFSCI
                 1   FILE DISSABS
                13   FILE EMBASE
                 2   FILE ESBIOBASE
                 6   FILE IFIPAT
                 1   FILE LIFESCI
                14   FILE MEDLINE
                 6   FILE PASCAL
                 1   FILE PHIN
                 2   FILE PROMT
                12   FILE SCISEARCH
                 3   FILE TOXCENTER
               270   FILE USPATFULL
                 4   FILE USPATOLD
                47   FILE USPAT2
                 7   FILE WPIDS
                 7   FILE WPINDEX
L8              QUE SCOLIO? AND CROSSLINK?
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     2008
L9            49 S SCOLIO? AND CROSSLINK?
L10           23 DUP REM L9 (26 DUPLICATES REMOVED)
L11           15 S L10 AND (PY<2002 OR AY<2002)
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.84       0.84

FILE 'HCAPLUS' ENTERED AT 09:17:52 ON 04 AUG 2008
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FILE COVERS 1907 - 4 Aug 2008  VOL 149 ISS 6
FILE LAST UPDATED: 3 Aug 2008  (20080803/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s scoliosis or scoliotic

           501 SCOLIOSIS
            50 SCOLIOTIC
L1         512 SCOLIOSIS OR SCOLIOTIC

=> s crosslink?

L2      301681 CROSSLINK?

=> s spinal fusion

         74137 SPINAL
        289912 FUSION
L3         249 SPINAL FUSION
                 (SPINAL(W)FUSION)

=> s l1 and l2

L4          10 L1 AND L2

=> s l2 and l3

L5           2 L2 AND L3

=> s l4 and (PY<2002 or AY<2002 or PRY<2002)

      21964513 PY<2002
       4211181 AY<2002
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       3677973 PRY<2002
L6           4 L4 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> s l5 and (PY<2002 or AY<2002 or PRY<2002)

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       4211181 AY<2002
       3677973 PRY<2002
L7           0 L5 AND (PY<2002 OR AY<2002 OR PRY<2002)

=> file stnguide

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     2.69       3.53

FILE 'STNGUIDE' ENTERED AT 09:18:04 ON 04 AUG 2008
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Aug  1, 2008 (20080801/UP).

=> d l4 1-10 ti ans bib
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y



'ANS' IS NOT A VALID FORMAT FOR FILE 'HCAPLUS'

The following are valid formats:

ABS --------- GI and AB
ALL --------- BIB, AB, IND, RE
APPS -------- AI, PRAI
BIB --------- AN, plus Bibliographic Data and PI table (default)
CAN --------- List of CA abstract numbers without answer numbers
CBIB -------- AN, plus Compressed Bibliographic Data
CLASS ------- IPC, NCL, ECLA, FTERM
DALL -------- ALL, delimited (end of each field identified)
DMAX -------- MAX, delimited for post-processing
FAM --------- AN, PI and PRAI in table, plus Patent Family data
FBIB -------- AN, BIB, plus Patent FAM
IND --------- Indexing data
IPC --------- International Patent Classifications
MAX --------- ALL, plus Patent FAM, RE
PATS -------- PI, SO
SAM --------- CC, SX, TI, ST, IT
SCAN -------- CC, SX, TI, ST, IT (random display, no answer numbers;
              SCAN must be entered on the same line as the DISPLAY,
              e.g., D SCAN or DISPLAY SCAN)
STD --------- BIB, CLASS

IABS -------- ABS, indented with text labels
IALL -------- ALL, indented with text labels
IBIB -------- BIB, indented with text labels
IMAX -------- MAX, indented with text labels
ISTD -------- STD, indented with text labels

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels
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SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

HIT --------- Fields containing hit terms
HITIND ------ IC, ICA, ICI, NCL, CC and index field (ST and IT)
              containing hit terms
HITRN ------- HIT RN and its text modification
HITSTR ------ HIT RN, its text modification, its CA index name, and
              its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and
              its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
KWIC -------- Hit term plus 20 words on either side
OCC --------- Number of occurrence of hit term and field in which it occurs

To display a particular field or fields, enter the display field
codes.  For a list of the display field codes, enter HELP DFIELDS at
an arrow prompt (=>).  Examples of formats include: TI; TI,AU; BIB,ST;
TI,IND; TI,SO.  You may specify the format fields in any order and the
information will be displayed in the same order as the format
specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR,
FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC
to view a specified Accession Number.
ENTER DISPLAY FORMAT (BIB):ti abs bib

L4   ANSWER 1 OF 10  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Direct application of non-toxic crosslinking reagents to resist
     progressive spinal deformity
AB   This invention relates to method of improving the resistance of
     collagenous tissue to mech. degradation in accordance with the present
     invention comprises the step of contacting at least a portion of a
     collagenous tissue with an effective amount of a crosslinking
     reagent.  Methods and devices for enhancing the body's own efforts to
     stabilize disks in scoliotic and other progressively deforming
     spines by increasing collagen crosslinks.  This stability
     enhancement is caused by reducing the bending hysteresis and increasing
     the elasticity and bending stiffness of progressively deforming spines, by
     injecting non-toxic crosslinking reagents into the convex side
     of disks involved in the potential or progressing deformity curve.
     Alternatively, contact between the tissue and the crosslinking
     reagent is effected by placement of a time-release delivery system
     directly into or onto the target tissue.  Methods and devices that use
     crosslinking agents for increasing the permeability of an
     intervertebral disk, improving fluid flux to the intervertebral disk, and
     increasing the biol. viability of cells within the intervertebral disk are
     provided.
AN   2007:874403  HCAPLUS <<LOGINID::20080804>>
DN   147:243356
TI   Direct application of non-toxic crosslinking reagents to resist
     progressive spinal deformity
PA   Hedman, Tom, USA
SO   PCT Int. Appl., 42pp.
     CODEN: PIXXD2
DT   Patent
LA   English
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FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007089233	A1	20070809	WO 2006-US3636	20060202
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI	WO 2006-US3636		20060202		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Natural collagens crosslinked with non-toxic crosslinking agents to resist progressive spinal deformity
AB A method of improving the resistance of collagenous tissue to mech. degradation in accordance with the present invention comprises the step of contacting at least a portion of a collagenous tissue with an effective amount of a crosslinking reagent. Methods and devices for enhancing the body's own efforts to stabilize disks in scoliotic and other progressively deforming spines by increasing collagen crosslinks. This stability enhancement is caused by reducing the bending hysteresis and increasing the elasticity and bending stiffness of progressively deforming spines, by injecting non-toxic crosslinking reagents into the convex side of disks involved in the potential or progressing deformity curve. Alternatively, contact between the tissue and the crosslinking reagent is effected by placement of a time-release delivery system directly into or onto the target tissue. Methods and devices that use crosslinking agents for increasing the permeability of an intervertebral disk, improving fluid flux to the intervertebral disk, and increasing the biol. viability of cells within the intervertebral disk are provided.
AN 2007:873614 HCAPLUS <<LOGINID::20080804>>
DN 147:220111
TI Natural collagens crosslinked with non-toxic crosslinking agents to resist progressive spinal deformity
IN Hedman, Thomas P.
PA USA
SO U.S. Pat. Appl. Publ., 17pp., Cont.-in-part of U.S. Ser. No. 786,861.
CODEN: USXXCO
DT Patent
LA English

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20070183973	A1	20070809	US 2006-346464	20060202
	US 20030049301	A1	20030313	US 2002-230671	20020829
	US 20040253219	A1	20041216	US 2004-786861	20040224
	US 20070196351	A1	20070823	US 2007-712684	20070228
	US 20070202143	A1	20070830	US 2007-726790	20070322
	US 20080064021	A1	20080313	US 2007-975072	20071017
PRAI	US 2001-316287P	P	20010831		
	US 2002-230671	A2	20020829		

US	2003-498790P	P	20030828
US	2004-786861	A2	20040224
US	2006-346464	A2	20060202
US	2007-712684	A2	20070228
US	2007-726790	A2	20070322

L4 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Polymer compositions comprising a antifibrotic or an antiinfective agent
AB Polymer compns. comprise a therapeutic agents such as antifibrotic or an antiinfective agent. Microspheres of mycophenolic acid-PVA were prepared and the average particle size distribution was determined
AN 2005:493532 HCAPLUS <<LOGINID::20080804>>
DN 143:32339
TI Polymer compositions comprising a antifibrotic or an antiinfective agent
IN Hunter, William L.; Gravett, David M.; Toleikis, Philip M.; Maiti, Arpita; Liggins, Richard T.; Takacs-Cox, Aniko; Avelar, Rui; Loss, Troy A. E.
PA Angiotech International A.-G., Switz.
SO PCT Int. Appl., 1945 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 19

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005051452	A2	20050609	WO 2004-US39389	20041122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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US 20050181977	A1	20050818	US 2004-986231	20041110
CN 101094613	A	20071226	CN 2004-80031664	20041110
AU 2004293071	A1	20050609	AU 2004-293071	20041122
CA 2536181	A1	20050609	CA 2004-2536181	20041122
EP 1684819	A2	20060802	EP 2004-816983	20041122
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CN 1878514	A	20061213	CN 2004-80033341	20041122
JP 2007517543	T	20070705	JP 2006-541670	20041122
US 20050149158	A1	20050707	US 2004-409	20041129
US 20050175662	A1	20050811	US 2004-451	20041129
US 20050175661	A1	20050811	US 2004-999205	20041129
US 20050186243	A1	20050825	US 2004-97	20041129
US 20050186242	A1	20050825	US 2004-999204	20041129
US 20050191331	A1	20050901	US 2004-1419	20041130
US 20050175663	A1	20050811	US 2004-1791	20041202
US 20050181008	A1	20050818	US 2004-1786	20041202
US 20050181011	A1	20050818	US 2004-1792	20041202
US 20050143817	A1	20050630	US 2004-6899	20041207
US 20050177103	A1	20050811	US 2004-6314	20041207
US 20050177225	A1	20050811	US 2004-6895	20041207
US 20050181004	A1	20050818	US 2004-6289	20041207
US 20050281883	A1	20051222	US 2005-118088	20050428
WO 2006078282	A2	20060727	WO 2005-US15036	20050428

WO 2006078282 A3 20070118
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WO 2006083260 A2 20060810 WO 2005-US14906 20050428
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CN 101080246 A 20071128 CN 2005-80021739 20050428
BR 2005010477 A 20080108 BR 2005-10477 20050428
US 20060147492 A1 20060706 US 2006-343809 20060131
IN 2006KN01694 A 20070511 IN 2006-KN1694 20060619
IN 2006KN01695 A 20070511 IN 2006-KN1695 20060619
IN 2006KN01698 A 20070511 IN 2006-KN1698 20060619
KR 2007033981 A 20070327 KR 2006-725027 20061128
IN 2006CN04364 A 20070810 IN 2006-CN4364 20061128
PRAI US 2003-523908P P 20031120
US 2003-525226P P 20031124
US 2003-526541P P 20031203
US 2004-566569P P 20040428
US 2004-586861P P 20040709
US 2004-611077P P 20040917
US 2004-986231 A 20041110
US 2003-518785P P 20031110
US 2003-524023P P 20031120
US 2004-578471P P 20040609
US 2004-582833P P 20040624
US 2004-986230 A 20041110
US 2004-986450 A1 20041110
WO 2004-US37930 W 20041110
WO 2004-US39183 W 20041122
WO 2004-US39346 W 20041122
WO 2004-US39353 W 20041122
WO 2004-US39389 W 20041122
WO 2005-US14906 W 20050428
WO 2005-US15036 W 20050428

L4 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Method for the treatment of connective tissue diseases
AB Method is disclosed for the treatment of collagen diseases. The invention relates to a method for the treatment of connective tissue diseases associated with weakening or damage of collagen tissue due to disease, injury or mech. stress by the application of a proteoglycan and electromagnetic

radiation. The treatment phys. and visually repairs the weakened or damaged tissue in vivo or in vitro and may be used on any animal having and collagen tissue.

AN 2005:405328 HCAPLUS <<LOGINID::20080804>>

DN 142:423912

TI Method for the treatment of connective tissue diseases

IN Pineau, Mitchell; Birchem, Gerald; Bon, Edwin

PA Visionary Biomedical, Inc., USA

SO PCT Int. Appl., 13 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005041662	A1	20050512	WO 2003-US34775	20031103
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	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003286832	A1	20050519	AU 2003-286832	20031103
PRAI	US 2003-677237	A	20031003		
	WO 2003-US34775	W	20031103		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Mutations Near Amino End of α1(I) Collagen Cause Combined Osteogenesis Imperfecta/Ehlers-Danlos Syndrome by Interference with N-propeptide Processing

AB Patients with OI/EDS form a distinct subset of osteogenesis imperfecta (OI) patients. In addition to skeletal fragility, they have characteristics of Ehlers-Danlos syndrome (EDS). The authors identified 7 children with types III or IV OI, plus severe large and small joint laxity and early progressive scoliosis. In each child with OI/EDS, we identified a mutation in the first 90 residues of the helical region of α1(I) collagen. These mutations prevent or delay removal of the procollagen N-propeptide by purified N-proteinase (ADAMTS-2) in vitro and in pericellular assays. The mutant pN-collagen which results is efficiently incorporated into matrix by cultured fibroblasts and osteoblasts and is prominently present in newly incorporated and immaturely cross-linked collagen. Dermal collagen fibrils have significantly reduced cross-sectional diams., corroborating incorporation of pN-collagen into fibrils in vivo. Differential scanning calorimetry revealed that these mutant collagens are less stable than the corresponding procollagens, which is not seen with other type I collagen helical mutations. These mutations disrupt a distinct folding region of high thermal stability in the first 90 residues at the amino end of type I collagen and alter the secondary structure of the adjacent N-proteinase cleavage site. Thus, these OI/EDS collagen mutations are directly responsible for the bone fragility of OI and indirectly responsible for EDS symptoms, by interference with N-propeptide removal.

AN 2005:393826 HCAPLUS <<LOGINID::20080804>>

DN 142:461529

TI Mutations Near Amino End of α1(I) Collagen Cause Combined

Osteogenesis Imperfecta/Ehlers-Danlos Syndrome by Interference with N-propeptide Processing
AU Cabral, Wayne A.; Makareeva, Elena; Colige, Alain; Letocha, Anne D.; Ty, Jennifer M.; Yeowell, Heather N.; Pals, Gerard; Leikin, Sergey; Marini, Joan C.
CS Bone and Extracellular Matrix Branch, NICHD, National Institutes of Health, Bethesda, MD, 20892, USA
SO Journal of Biological Chemistry (2005), 280(19), 19259-19269
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Corrosion of spinal implants retrieved from patients with scoliosis
AB Spinal implants retrieved from 11 patients with scoliosis were examined All the implants were posterior instrumentation systems made of 316L stainless steel and composed of rods, hooks, and crosslink connectors. Corrosion was classified into grades 0 to 3 based on macroscopic findings of the rod surface at the junction of each hook or crosslink connector. Grade 0 was defined as no sign of corrosion, grade 1 as surface discoloration, grade 2 as superficial metal loss, and grade 3 as severe metal loss. The depths and characteristics of metal loss areas were examined Spinal implants showed more corrosion after long-term implantation than after short-term implantation. Corrosion was seen on many of the rod junctions (66.2%) after long-term implantation, but there was no difference between the junction at the hook and those at the crosslink connector. It is thought that intergranular corrosion and fretting contributed to the corrosion of implants. The current study demonstrated that corrosion takes place at many of the rod junctions in long-term implantation. The authors recommend removal of the spinal implants after solid bony union.
AN 2005:297335 HCAPLUS <<LOGINID::20080804>>
DN 144:198449
TI Corrosion of spinal implants retrieved from patients with scoliosis
AU Akazawa, Tsutomu; Minami, Shohei; Takahashi, Kazuhisa; Kotani, Toshiaki; Hanawa, Takao; Moriya, Hideshige
CS Department of Orthopedic Surgery, Graduate School of Medicine, Chiba University, 1-8-1 Inohana, Chuo-ku, Chiba, 260-8670, Japan
SO Journal of Orthopaedic Science (2005), 10(2), 200-205
CODEN: JOSCFS; ISSN: 0949-2658
PB Springer Tokyo
DT Journal
LA English
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Non-toxic crosslinking reagents to resist curve progression in scoliosis and increase disc permeability
AB A method of improving the resistance of collagenous tissue to mech. degradation in accordance with the present invention comprises the step of contacting at least a portion of a collagenous tissue with an effective amount of a crosslinking reagent, i.e., genipin, ribose, threose, and lysyl oxidase. Methods and devices for enhancing the body's own efforts to stabilize disks in scoliotic spines by increasing collagen crosslinks. This stability enhancement is caused by

reducing the bending hysteresis and increasing the bending stiffness of scoliotic spines, by injecting non-toxic crosslinking reagents into the convex side of disks involved in the scoliotic curve. Alternatively, contact between the tissue and the crosslinking reagent is affected by placement of a time-release delivery system directly into or onto the target tissue. Methods and devices that use crosslinking agents for increasing the permeability of an intervertebral disk, improving fluid flux to the intervertebral disk, and increasing the biol. viability of cells within the intervertebral disk are provided.

AN 2004:1080506 HCAPLUS <<LOGINID::20080804>>

DN 142:62696

TI Non-toxic crosslinking reagents to resist curve progression in scoliosis and increase disc permeability

IN Hedman, Thomas P.

PA University of Southern California, USA

SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 230,671.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20040253219	A1	20041216	US 2004-786861	20040224
	US 20030049301	A1	20030313	US 2002-230671	20020829
	AU 2004268628	A1	20050310	AU 2004-268628	20040827
	CA 2536415	A1	20050310	CA 2004-2536415	20040827
	WO 2005020862	A1	20050310	WO 2004-US28039	20040827
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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	EP 1660001	A1	20060531	EP 2004-782506	20040827
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	JP 2007504162	T	20070301	JP 2006-524909	20040827
	US 20070183973	A1	20070809	US 2006-346464	20060202
	KR 2007058369	A	20070608	KR 2006-704202	20060228
	US 20070196351	A1	20070823	US 2007-712684	20070228
	US 20070202143	A1	20070830	US 2007-726790	20070322
	US 20080064021	A1	20080313	US 2007-975072	20071017
PRAI	US 2001-316287P	P	20010831		
	US 2002-230671	A2	20020829		
	US 2003-498790P	P	20030828		
	US 2004-786861	A	20040224		
	WO 2004-US28039	W	20040827		
	US 2006-346464	A2	20060202		
	US 2007-712684	A2	20070228		
	US 2007-726790	A2	20070322		

L4 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN

TI The kyphoscoliotic type of Ehlers-Danlos syndrome (type VI): differential effects on the hydroxylation of lysine in collagens I and II revealed by analysis of cross-linked telopeptides from urine

AB The kyphoscoliotic type of Ehlers-Danlos syndrome (EDS type VIA) (OMIM 225400) is an autosomal recessive connective tissue disorder that results from mutations in the lysyl hydroxylase 1 gene (PLOD1) causing underhydroxylation of lysine residues in tissue collagens, particularly of skin. Previous studies have shown that the pool of collagen crosslinking amino acids, hydroxylysyl pyridinoline (HP) and lysyl pyridinoline (LP) excreted in urine has an abnormally low HP/LP ratio, which is diagnostic of the condition. Here the authors isolated cross-linked peptides containing these residues from the urine of a child with EDS VIA homozygous for a mutation that results in a stop codon and effective null expression of PLOD1 enzyme activity. Peptides that had originated from bone type I collagen and cartilage type II collagen were identified. A cross-linked N-telopeptide fraction that is derived from bone type I collagen contained only LP, no HP, which means that the helical lysines at residues 930 of α1(I) and 933 of α2(I) of the collagen triple-helix had not been hydroxylated. The equivalent peptide fraction from a normal child's urine gave a ratio of HP to LP of 1.5:1 typical for normal bone collagen. A second cross-linked peptide that is derived from the C-telopeptide domain of cartilage type II collagen showed both HP and LP in a 2:1 ratio, compared with 18:1 for the equivalent peptide from a normal child's urine. The results show that in EDS VIA, bone type I collagen is more markedly underhydroxylated than cartilage type II collagen, at least at those helical sites that form cross-links. The residual fraction of HP found in the urine of EDS VI patients therefore appears to be contributed in significant part by the degradation products of cartilage. Since PLOD1 is null, other PLOD genes must be responsible for the helical hydroxylation activity that results in HP. The presented approach of analyzing urinary cross-linked C-telopeptide fragments of type II collagen may allow the detection of chondrodysplasias due to genetic defects in lysyl hydroxylase isoforms active in cartilage.
AN 2002:530958 HCAPLUS <<LOGINID::20080804>>
DN 138:13136
TI The kyphoscoliotic type of Ehlers-Danlos syndrome (type VI): differential effects on the hydroxylation of lysine in collagens I and II revealed by analysis of cross-linked telopeptides from urine
AU Eyre, David; Shao, Ping; Ann Weis, Mary; Steinmann, Beat
CS Orthopaedic Research Laboratories, University of Washington, Seattle, WA, 98195-6500, USA
SO Molecular Genetics and Metabolism (2002), 76(3), 211-216
CODEN: MGMEFF; ISSN: 1096-7192
PB Elsevier Science
DT Journal
LA English
RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Collagen crosslinking and cartilage glycosaminoglycan composition in normal and scoliotic chickens
AB The amts. of lysine-derived crosslinks in collagens from tendon, cartilage, intervertebral disk, and bone and changes in the composition of sternal cartilage glycosaminoglycans were estimated in two lines of chickens, a control-isogenic line and a line that develops scoliosis. In the scoliotic line, scoliosis first appears at 3-4 wk and progressively increases in severity and incidence so that 90% of the birds express the lesion by week 10. It was reported previously that cartilage, tendon, and bone collagens from scoliotic birds are more soluble than corresponding collagens from normal birds. Herein, collagen crosslinking and altered proteoglycan metabolism are examined as possible mechanisms for the differences in collagen solubility At 1 wk of age, there were fewer reducible crosslinking amino acids

(hydroxylsinonorleucine, dihydroxylysinonorleucine, and lysinonorleucine) in collagens from sternal cartilage and tendon in the scoliotic line than in the isogenic line. However, by week 3 and at weeks 5 or 7 values were similar in both groups. The amts. of hydroxypyridinium in vertebral bone and intervertebral disk collagen were also similar in both groups of birds. Consequently, differences in collagen crosslinking do not appear to be a persistent developmental defect underlying the expression of scoliosis in the model. However, differences were observed in cartilage proteoglycans and glycosaminoglycans from the scoliotic line that were not present in cartilage from the isogenic line. The average mol. weight of the uronide-containing glycosaminoglycans was 30% less in the scoliotic line than in the isogenic line, i.e., 12,000 compared to 18,000. The size distribution of cartilage proteoglycans from the scoliotic line also differed from that of proteoglycans from the isogenic line. An overly sulfated chondroitin also appeared to be a minor component of the glycosaminoglycans in cartilage from the scoliotic line. This chondroitin was not observed in cartilage from the isogenic line of chickens.

AN 1989:21883 HCAPLUS <<LOGINID::20080804>>
DN 110:21883
OREF 110:3693a,3696a
TI Collagen crosslinking and cartilage glycosaminoglycan composition in normal and scoliotic chickens
AU Greve, Carl; Opsahl, William; Reiser, Karen; Abbott, Ursula; Kenney, Cristina; Benson, Daniel; Rucker, Robert
CS Dep. Nutr., Univ. California, Davis, CA, 95616, USA
SO Biochimica et Biophysica Acta, General Subjects (1988), 967(2), 275-83
CODEN: BBGSB3; ISSN: 0304-4165
DT Journal
LA English

L4 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Scoliosis in chickens: responsiveness of severity and incidence to dietary copper
AB The severity and incidence of spinal lesions were manipulated in a line of chickens susceptible to scoliosis by varying their dietary intake of Cu. A decrease in expression of the lesion was related to increased intake of Cu. The change in expression, however, appeared to be related only indirectly to the defects in collagen crosslinking, maturation, and deposition known to be associated with dietary Cu deficiency. Thus, a dietary constituent in the range of normal intakes may act as an environmental factor in the expression of scoliosis.
AN 1984:489373 HCAPLUS <<LOGINID::20080804>>
DN 101:89373
OREF 101:13701a,13704a
TI Scoliosis in chickens: responsiveness of severity and incidence to dietary copper
AU Opsahl, William; Abbott, Ursula; Kenney, Cristina; Rucker, Robert
CS Dep. Nutr., Univ. California, David, CA, 95616, USA
SO Science (Washington, DC, United States) (1984), 225(4660), 440-2
CODEN: SCIEAS; ISSN: 0036-8075
DT Journal
LA English

=> d l5 1-4 ti abs bib
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L5 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Malleable medical implants such as pastes or putties, containing demineralized bone matrix, particulate collagen, and polysaccharide gel
AB Described are malleable medical compns. such as pastes or putties that include solids combined with a liquid carrier. The solids include particulate collagen and particulate demineralized bone matrix (DRM). The liquid carrier includes an aqueous medium comprising a polysaccharide. Also described are methods for making and using such medical compns. Thus, osteoinductive putty was formulated comprising 12.9 g sodium alginate, 325 cc phosphate buffered saline, 16.13 g milled, crosslinked collagen sponge, 100 g DRM having a particle size of 55-850 μm. The osteoinductive putties prepared as above contained, on a dry weight basis, 77.5 % DBM, 10.0 % alginate, and 12.5 % collagen; on a wet weight basis, the putties contained 21.4 % DBM, 2.8 % sodium alginate, 3.4 % collagen, and 72.4 % phosphate buffered saline. The compns. were of good putty quality and would retain their shape unless kneaded or pressed upon.
AN 2007:1242930 HCAPLUS <<LOGINID::20080804>>
DN 147:474859
TI Malleable medical implants such as pastes or putties, containing demineralized bone matrix, particulate collagen, and polysaccharide gel
IN Drapeau, Susan J.; Chamness, Kathy L.; McKay, William F.
PA USA
SO U.S. Pat. Appl. Publ., 13pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20070254042	A1	20071101	US 2006-415037	20060501
	WO 2007130906	A2	20071115	WO 2007-US67767	20070430
	WO 2007130906	A3	20080327		
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	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
	US 20080152691	A1	20080626	US 2008-43733	20080306
PRAI	US 2006-415037	A	20060501		
	WO 2007-US67767	A1	20070430		

L5 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Enhancement of graft bone healing by intermittent administration of human parathyroid hormone (1-34) in a rat spinal arthrodesis model
AB Bone grafting is commonly used to treat skeletal disorders associated with large bone defect or unstable joint. It can take several months, however, to achieve a solid union and bony fusion sometimes delays or fails especially in osteoporosis patients. Therefore, we used a rat spinal arthrodesis model to examine whether intermittent administration of human PTH(1-34) accelerates bone graft healing. Eighty-two male Sprague-Dawley rats underwent posterolateral spinal arthrodesis surgery using autologous bone grafts. Animals were given daily s.c. injections of hPTH(1-34) (40 μg/kg/day PTH group) or 0.9% saline vehicle (control group) from

immediately after surgery till death. Five rats each were killed 2, 4, 7, and 14 days after the surgery, and mRNA expression anal. was performed on harvested grafted bone. Seven rats each were killed 14, 28, and 42 days after the surgery, and the lumbar spine, which contained the grafted spinal segment, was subjected to fusion assessment, microstructural anal. using three-dimensional micro-computed tomog., and histol. examination Serum bone metabolism markers were analyzed. The results indicated that PTH administration decreased the time required for graft bone healing and provided a structurally superior fusion mass in the rat spinal arthrodesis model. PTH administration increased the fusion rate on day 14 (14% in the control group and 57% in the PTH group), accelerated grafted bone resorption, and produced a larger and denser fusion mass compared to control. MRNA expression of both osteoblast- and osteoclast-related genes was upregulated by PTH treatment, and serum bone formation and resorption marker levels were higher in the PTH group than in the control group. Histol. calculated mineral apposition rate, mineralized surface and osteoclast surface were also higher in the PTH group than in the control group. These findings suggest that intermittent administration of PTH(1-34) enhanced bone turn over dominantly on bone formation at the graft site, leading to the acceleration of the spinal fusion. Based on the results of this study, intermittent injection of hPTH(1-34) might be an efficient adjuvant intervention in spinal arthrodesis surgery and all other skeletal reconstruction surgeries requiring bone grafts.

AN 2007:1192720 HCAPLUS <<LOGINID::20080804>>
DN 148:183682
TI Enhancement of graft bone healing by intermittent administration of human parathyroid hormone (1-34) in a rat spinal arthrodesis model
AU Abe, Yuichiro; Takahata, Masahiko; Ito, Manabu; Irie, Kazuharu; Abumi, Kuniyoshi; Minami, Akio
CS Department of Orthopaedic Surgery, Hokkaido University Graduate School of Medicine, Kita-15 Nishi-7 Kita-ku, Sapporo, 060-8638, Japan
SO Bone (San Diego, CA, United States) (2007), 41(5), 775-785
CODEN: BONEDL; ISSN: 8756-3282
PB Elsevier
DT Journal
LA English
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 09:15:43 ON 04 AUG 2008)

FILE 'HCAPLUS' ENTERED AT 09:17:52 ON 04 AUG 2008
L1 512 S SCOLIOSIS OR SCOLIOTIC
L2 301681 S CROSSLINK?
L3 249 S SPINAL FUSION
L4 10 S L1 AND L2
L5 2 S L2 AND L3
L6 4 S L4 AND (PY<2002 OR AY<2002 OR PRY<2002)
L7 0 S L5 AND (PY<2002 OR AY<2002 OR PRY<2002)

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FILE 'HCAPLUS' ENTERED AT 09:18:17 ON 04 AUG 2008

FILE 'STNGUIDE' ENTERED AT 09:18:26 ON 04 AUG 2008

FILE 'HCAPLUS' ENTERED AT 09:18:31 ON 04 AUG 2008

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                     0.00      -9.60

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Welcome to STN International!  Enter x:X

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       AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
       CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
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69 FILES IN THE FILE LIST IN STNINDEX

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search error messages that display as 0* with SET DETAIL OFF.

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        10   FILE BIOSIS
         3   FILE BIOTECHNO
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         1   FILE DISSABS
        13   FILE EMBASE
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         6   FILE IFIPAT
         1   FILE LIFESCI
        14   FILE MEDLINE
         6   FILE PASCAL
         1   FILE PHIN
         2   FILE PROMT
        12   FILE SCISEARCH
         3   FILE TOXCENTER
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       270   FILE USPATFULL
         4   FILE USPATOLD
        47   FILE USPAT2
         7   FILE WPIDS
         7   FILE WPINDEX

  22 FILES HAVE ONE OR MORE ANSWERS,   69 FILES SEARCHED IN STNINDEX

L8   QUE SCOLIO? AND CROSSLINK?

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                     0.00      -9.60

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FILE 'EMBASE' ENTERED AT 09:59:11 ON 04 AUG 2008
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FILE 'SCISEARCH' ENTERED AT 09:59:11 ON 04 AUG 2008
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=> s scolio? and crosslink?
L9          49 SCOLIO? AND CROSSLINK?

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'2002' NOT A VALID FIELD CODE
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'2002' NOT A VALID FIELD CODE
L11         15 L10 AND (PY<2002 OR AY<2002)

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L11 ANSWER 1 OF 15 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Fanconi Anemia with triphalangeal thumbs, syndactyly and contractures of the fingers in a 2 year old boy.
AB Fanconi Anemia (FA) is a rare autosomal recessive disorder associated with pancytopenia, spontaneous chromosome instability and a variety of congenital anomalies. Hypersensitivity to bifunctional alkylating or DNA crosslinking agents like Mitomycin C (MMC), Diepoxybutane (DEB) and Nitrogen Mustard (HN2) is used as a differential diagnostic test. A variable phenotype and age of onset of anemia make diagnosis difficult in some cases. We report a case of Fanconi anemia detected by the MMC stress test in a 2 year old boy, operated for bilateral syndactyly and contractures of fingers. He had a bifid thumb on the left hand and bilateral triphalangeal thumbs. There was no history of consanguinity or malformations, though a maternal uncle had a bifid thumb. USG in a subsequent pregnancy showed bony anomalies like scoliosis, talipes, contractures and radial aplasia, consistent with FA. The parents opted for termination. An early diagnosis of FA in a non-manifesting child would provide more time to explore different treatment options, since a delay in diagnosis could have serious consequences.
AN 2003:53559 BIOSIS <<LOGINID::20080804>>
DN PREV200300053559
TI Fanconi Anemia with triphalangeal thumbs, syndactyly and contractures of the fingers in a 2 year old boy.
AU Madon, Prochi F. [Reprint Author]; Athalye, Arundhati S.; Lulla, Chander P.; Parikh, Firuza R.
CS Jaslok Hospital and Research Centre, 15 Dr. G. Deshmukh Marg, Mumbai, 400 026, India
prochimadon@hotmail.com
SO International Journal of Human Genetics, (June 2001) Vol. 1, No. 2, pp. 87-90. print.
ISSN: 0972-3757 (ISSN print).
DT Article
LA English
ED Entered STN: 22 Jan 2003
Last Updated on STN: 22 Jan 2003

L11 ANSWER 2 OF 15 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Comparison of single- and dual-rod techniques for posterior spinal instrumentation in the treatment of adolescent idiopathic scoliosis.
AB Study Design. Two groups of patients undergoing posterior spinal instrumentation and arthrodesis for treatment of adolescent idiopathic scoliosis were reviewed retrospectively. Objective. To compare intraoperative concerns (operative time and blood loss), complications, and outcome in patients undergoing single or double posterior rod instrumentation for treatment of adolescent idiopathic scoliosis . Summary of Background Data. The current treatment of idiopathic scoliosis includes posterior spinal instrumentation and arthrodesis. The standard configuration is a rectangular construct of dual rods connected by crosslinks. Use of a single rod with multiple fixation points has been proposed as an alternative method to decrease operative time and blood loss, and to avoid late deep infections. Methods. In this study, 21 patients underwent posterior instrumentation using a standard dual-rod construct, and 25 patients underwent posterior instrumentation using a solitary rod with multiple fixation points. Patients were assessed after a minimum 2-year follow-up period. Results. No significant differences were found in blood loss, operative time, or overall frequency of long-term complications. Although not statistically significant, the trend was toward implant prominence in the double-rod group and implant failure in the single-rod group. Implant failure

occurred only in instrumentations extending into the lumbar spine. There was no statistical difference in curve progression. Conclusions. Single-rod instrumentation and dual-rod constructs offered similar curve correction, blood loss, and operative time. However, single-rod instrumentation may be more prone to implant failure when extended into the lumbar spine.
AN 2000:411874 BIOSIS <<LOGINID::20080804>>
DN PREV200000411874
TI Comparison of single- and dual-rod techniques for posterior spinal instrumentation in the treatment of adolescent idiopathic scoliosis.
AU Albers, Henry W. [Reprint author]; Hresko, M. Timothy; Carlson, Jeffery; Hall, John E.
CS Orthopaedic Center for Spinal and Pediatric Care, Childrens' Medical Center, One Childrens' Plaza, Dayton, OH, 45404, USA
SO Spine, (August 1, 2000) Vol. 25, No. 15, pp. 1944-1949. print.
CODEN: SPINDD. ISSN: 0362-2436.
DT Article
LA English
ED Entered STN: 27 Sep 2000
Last Updated on STN: 8 Jan 2002

L11 ANSWER 3 OF 15 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Bending of the Cotrel-Dubousset instrumentation after direct trauma: A case report.
AB Study Design. Case report. Objectives. To describe a fracture through the fusion mass of a spine that had been corrected previously with Cotrel-Dubousset rods. These rods had failed in bending after direct trauma. Summary of Background Data. Nine years after successful treatment of scoliosis with Cotrel-Dubousset instrumentation, the patient was in a motor vehicle accident and sustained a hyperextension spine injury with complete L1-L2 paraplegia and disruption of the fusion mass. The Cotrel-Dubousset instrumentation rods, which failed in bending, could not be corrected in situ, and the angulated segments had to be resected. The spine then became extremely unstable, and the patient consulted the authors for definitive stabilization. Results. The spine was stabilized by attaching the proximal and distal retained Cotrel Dubousset instrumentation to supplemental rods in a "domino" fashion. Crosslinks were added to improve the torsional stability. Intraoperatively, the fracture was well reduced, and the fixation was stable. A posterolateral fusion was performed with allogenic bone graft. Conclusion. Bent Cotrel-Dubousset instrumentation rods are still very strong and may not correct in situ. If resection is required, the retained portions of Cotrel-Dubousset instrumentation can serve as attachments to restore stable fixation a "domino" technique.
AN 2000:259743 BIOSIS <<LOGINID::20080804>>
DN PREV200000259743
TI Bending of the Cotrel-Dubousset instrumentation after direct trauma: A case report.
AU Nana, Arvind; Gugala, Zbigniew; Lindsey, Ronald W. [Reprint author]; Caram, Pedro M.; Dickson, Jesse H.
CS Department of Orthopedic Surgery, Baylor College of Medicine, 6560 Fannin, Suite 1900, Houston, TX, 77030, USA
SO Spine, (April 1, 2000) Vol. 25, No. 7, pp. 891-894. print.
CODEN: SPINDD. ISSN: 0362-2436.
DT Article
LA English
ED Entered STN: 21 Jun 2000
Last Updated on STN: 5 Jan 2002

L11 ANSWER 4 OF 15 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI TSRH (Texas Scottish Rite Hospital) spinal instrumentation system.
AN 2000:243012 BIOSIS <<LOGINID::20080804>>
DN PREV200000243012
TI TSRH (Texas Scottish Rite Hospital) spinal instrumentation system.
AU Johnston, Charles E., II [Reprint author]; Ashman, Richard B.
CS Texas Scottish Rite Hospital for Children, Dallas, TX, 75219, USA
SO Spine, (March 15, 2000) Vol. 25, No. 6 Suppl, pp. 37S-67S.
print.
CODEN: SPINDD. ISSN: 0362-2436.
DT Article
General Review; (Literature Review)
LA English
ED Entered STN: 14 Jun 2000
Last Updated on STN: 5 Jan 2002

L11 ANSWER 5 OF 15 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Posterior spinal instrumentation and fusion of a neuromuscular scoliosis in a patient with autosomal dominant osteopetrosis.
AB Study Design: A case report of a patient with autosomal dominant osteopetrosis and neuromuscular scoliosis who required surgical instrumentation and fusion of her spine. Objective: To illustrate the surgical technique and long-term outcome in this rare form of spinal deformity. Summary of Background Data: Osteopetrosis is a group of rare skeletal dysplasias characterized clinically by skeletal osteosclerosis that is classically described in appearance as "marble bone." Despite the ubiquitous involvement of the vertebra, clinical manifestations of spinal involvement are uncommon. We present the case of an osteopetrosis patient with neuromuscular scoliosis who required surgical correction of her progressive deformity. There are no prior reports in the literature concerning operative or nonoperative management of scoliosis in this patient population. Methods: The surgical technique utilized as well as the patient's response to surgical management of her scoliosis is presented with 5 year follow-up. Results: The patient underwent a successful T4 to L1 posterior spine fusion and instrumentation using Luque rods, sublaminar wires and allograft bone augmentation. At 5 years following her index procedure, she is clinically and radiographically fused. Conclusion: Patients with osteopetrosis present unique surgical challenges during surgical correction of spinal deformities. The use of segmental sublaminar wires with 1/4-inch rods and crosslinks afforded stable fixation despite poor bone quality. Allograft bone combined with postoperative bracing resulted in a well-maintained correction and a solid fusion. Five year follow-up and continued radiographic evidence of stable fusion indicate that the presented approach can lead to a successful outcome in the osteopetrotic patient population.
AN 2000:131589 BIOSIS <<LOGINID::20080804>>
DN PREV200000131589
TI Posterior spinal instrumentation and fusion of a neuromuscular scoliosis in a patient with autosomal dominant osteopetrosis.
AU Westerlund, L. Erik; Blanco, John S. [Reprint author]; Chhabra, Abhinav
CS Department of Orthopaedic Surgery, Division of Pediatric Orthopaedics, University of Virginia Health System, 2270 Ivy Road, Charlottesville, VA, 22903, USA
SO Spine, (Jan. 15, 2000) Vol. 25, No. 2, pp. 265-267. print.
CODEN: SPINDD. ISSN: 0362-2436.
DT Article
LA English
ED Entered STN: 12 Apr 2000
Last Updated on STN: 4 Jan 2002

L11 ANSWER 6 OF 15 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Spinal-pelvic fixation in patients with lumbosacral neoplasms.
AB Object: Primary and metastatic neoplasms of the lumbosacral junction frequently pose a complex problem for the surgical management and stabilization of the spine because of the anatomical and biomechanical factors of this transition zone between spine and pelvis. The authors have used a modification of the Galveston technique, originally described by Allen and Ferguson in the treatment of scoliosis, to achieve rigid spinal-pelvic fixation in patients with lumbosacral neoplasms. The authors retrospectively reviewed their experience, with particular attention to method, pain relief, and neurological status. Methods: From July 1994 through December 1998, 13 patients at the authors' institution have required spinal-pelvic fixation secondary to instability caused by primary (eight cases) or metastatic (five cases) neoplasms. Previous treatment included spinal surgery in 10 (77%), radiation therapy in seven (54%), and/or chemotherapy in six (46%). Following tumor resection, fixation was achieved by intraoperative placement of contoured titanium rods bilaterally into the ilium. These rods were attached to the lumbar spine with pedicle screws and subsequently crosslinked. Arthrodesis was performed. In the follow-up period of 3 to 50 months (average 20 months), nine (69%) of 13 patients were still alive. There were no cases of surgery-related death. Seven weeks postoperatively instrumentation failure occurred in one patient and was corrected by performing double L-rod spinal-pelvic fixation. Two patients experienced neurological dysfunction (ankle weakness and neurogenic bladder) that was thought to be related to tumor resection rather than the fixation procedure. Neurological status improved in four patients and remained unchanged in seven patients. Ambulatory status improved in 62% (eight patients), remained unchanged in 23% (three patients), and worsened in 15% (two patients). Spinal pain, as measured by a visual analog pain scale and determined by medication consumption was significantly reduced in 85% (11 cases). Conclusions: In selected patients with primary or metastatic lumbosacral tumors, resection followed by modified Galveston L-rod spinal-pelvic fixation is an effective means of achieving stabilization that can provide significant pain relief and preserve ambulatory capacity.
AN 2000:84851 BIOSIS <<LOGINID::20080804>>
DN PREV200000084851
TI Spinal-pelvic fixation in patients with lumbosacral neoplasms.
AU Jackson, Robert J. [Reprint author]; Gokaslan, Ziya L.
CS Department of Neurosurgery, Baylor College of Medicine, Houston, TX, USA
SO Journal of Neurosurgery, (Jan., 2000) Vol. 92, No. 1 suppl., pp. 61-70. print.
CODEN: JONSAC. ISSN: 0022-3085.
DT Article
LA English
ED Entered STN: 1 Mar 2000
Last Updated on STN: 3 Jan 2002

L11 ANSWER 7 OF 15 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Spinal fusion in Duchenne's muscular dystrophy.
AB The Women's and Children's Hospital experience with Luque spinal fusion in Duchenne's muscular dystrophy was reviewed from its commencement in 1983 to the present with a view to assessing the clinical and radiologic outcome and safety of the procedure. Seventeen boys have undergone spinal fusion. L-rod instrumentation was used in 10, six of whom had significant problems with sitting imbalance or progression of the scoliosis or both. In seven cases, distal instrumentation was taken to the pelvis with a Galveston construct and rigid crosslinking. Apart from some progression and sitting imbalance in the L-rod group, there were few complications. In the Galveston group, pelvic obliquity was corrected by a mean of 63%, and there was better maintenance of correction. There were no pseudoarthroses or instrument failures in the Galveston group. Of the

total group, four patients had forced vital capacity (FVC) values lt 25% predicted, and two required ventilation postoperatively (lt 48 h). There were no other respiratory complications. The effect of surgery on respiratory function remains uncertain. Spinal fusion with the Luque rod construct and pelvic fixation is a safe procedure. It provided a mean correction of 60% and control of pelvic obliquity without significant postoperative deterioration. In our experience, surgery can be safely performed with FVC values down to 20% predicted. On the basis of these data, our current practice is to instrument to the pelvis with a Galveston construct and Texas Scottish Rite Hospital cross-linking.

AN 1996:263313 BIOSIS <<LOGINID::20080804>>
DN PREV199698819442
TI Spinal fusion in Duchenne's muscular dystrophy.
AU Brook, P. D.; Kennedy, J. D.; Stern, L. M.; Sutherland, A. D.; Foster, B. K. [Reprint author]
CS Dep. Orthop. Surg., Women's Child. Hosp., 72 King William Rd., N. Adelaide, SA 5006, Australia
SO Journal of Pediatric Orthopaedics, (1996) Vol. 16, No. 3, pp. 324-331.
ISSN: 0271-6798.
DT Article
LA English
ED Entered STN: 10 Jun 1996
Last Updated on STN: 10 Jun 1996

L11 ANSWER 8 OF 15 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI COLLAGEN CROSSLINKING AND CARTILAGE GLYCOSAMINOGLYCAN COMPOSITION IN NORMAL AND SCOLIOTIC CHICKENS.
AB The amounts of lysine-derived crosslinks in collagens from tendon, cartilage, intervertebral disc, and bone and changes in the composition of sternal cartilage glycosaminoglycans were estimated in two lines of chickens, a control-isogenic line and a line that develops scoliosis. In the scoliotic line, scoliosis first appears at 3-4 weeks and progressively increases in severity and incidence so that 90% of the birds express the lesion by week 10. We have reported previously that cartilage, tendon, and bone collagen from scoliotic birds are more soluble than corresponding collagens from normal birds. Herein, collagen crosslinking and altered proteoglycan metabolism are examined as possible mechanisms for the differences in collagen solubility. At 1 week of age there were fewer reducible crosslinking amino acids (hydroxylysinonorleucine, dihydroxylysinonorleucine, and lysinonorleucine) in collagens from sternal cartilage and tendon in the scoliotic line than in the isogenic line. However, by week 3 and at weeks 5 or 7 values were similar in both groups. The amounts of hydroxypyridinium in vertebral bone and intervertebral disc collagen were also similar in both groups of birds. Consequently, differences in collagen crosslinking do not appear to be a persistent developmental defect underlying the expression of scoliosis in the model. However, differences were observed in cartilage proteoglycans and glycosaminoglycans from the scoliotic line that were not present in cartilage from the isogenic line. The average molecular weight of the uronide-containing glycosaminoglycans was 30% less in the scoliotic line than in the isogenic line, i.e., 12,000 compared to 18,000. The size distribution of cartilage proteoglycans from the scoliotic line also differed from that of proteoglycans from the isogenic line. An overly sulfated chondroitin also appeared to be a minor component of the glycosaminoglycans in cartilage from the scoliotic line. This chondroitin was not observed in cartilage from the isogenic line of chickens.
AN 1989:90580 BIOSIS <<LOGINID::20080804>>
DN PREV198987044716; BA87:44716

TI COLLAGEN CROSSLINKING AND CARTILAGE GLYCOSAMINOGLYCAN COMPOSITION IN NORMAL AND SCOLIOTIC CHICKENS.
AU GREVE C [Reprint author]; OPSAHL W; REISER K; ABBOTT U; KENNEY C; BENSON D; RUCKER R
CS DEP NUTR, COLL AGRIC ENVIRON SCI, UNIV CALIF AT DAVIS, DAVIS, CA 95616, USA
SO Biochimica et Biophysica Acta, (1988) Vol. 967, No. 2, pp. 275-283.
CODEN: BBACAQ. ISSN: 0006-3002.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 6 Feb 1989
Last Updated on STN: 6 Feb 1989

L11 ANSWER 9 OF 15 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI COLLAGEN CROSSLINKING AND GLYCOSAMINOGLYCAN METABOLISM IN CHICKENS WITH AN INHERITED FORM OF SCOLIOSIS.
AN 1987:327302 BIOSIS <<LOGINID::20080804>>
DN PREV198733037899; BR33:37899
TI COLLAGEN CROSSLINKING AND GLYCOSAMINOGLYCAN METABOLISM IN CHICKENS WITH AN INHERITED FORM OF SCOLIOSIS.
AU GREVE C [Reprint author]; RUCKER R; REISER K; OPSAHL W; ABBOTT U
CS DEP NUTRITION AND AVIAN SCI, UNIV CALIF, DAVIS, CALIF 95616, USA
SO Federation Proceedings, (1987) Vol. 46, No. 4, pp. 1326.
Meeting Info.: 71ST ANNUAL MEETING OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY, WASHINGTON, D.C., USA, MARCH 29-APRIL 2, 1987. FED PROC.
CODEN: FEPRA7. ISSN: 0014-9446.
DT Conference; (Meeting)
FS BR
LA ENGLISH
ED Entered STN: 25 Jul 1987
Last Updated on STN: 25 Jul 1987

L11 ANSWER 10 OF 15 MEDLINE on STN
TI Complications and results of long adult deformity fusions down to l4, l5, and the sacrum.
AB STUDY DESIGN: This is a consecutive study of patients having undergone surgical treatment of adult lumbar scoliosis. Follow-up ranged from 2 to 13 years (average 5 years). OBJECTIVES: To assess the complications and outcomes of patients with long fusions to L4 (n=23), L5 (n=21), or the sacrum (n=15) and determine if a "deeply seated" L5 segment is protective. SUMMARY OF BACKGROUND DATA: Few studies assess outcomes and complications in adults fused from the thoracic spine to L4, L5, or the sacrum with minimum 2-year follow-up. METHODS: Fifty-eight patients (59 cases; average age 43 years; range 21 to 60) with minimum 2-year follow-up were analyzed for subsequent spinal degeneration and complications. Outcomes were assessed from questionnaires administered at latest follow-up. RESULTS: Sixteen percent of cases (7 of 44) fused short of the sacrum displayed subsequent postoperative distal spinal degeneration, although only three patients were symptomatic. Compared with the group with no subsequent degeneration, this group had a lower improvement in function and pain relief. Other complications for patients fused short of the sacrum included two cases with crosslink breakage, one with neurologic deficit, three with pseudarthroses, one with hook pullout, and one with L5 screw pullout. For cases fused to the sacrum, two cases with deep wound infections and one with loose iliac screw requiring removal were observed. Because two of four cases fused to L5 with subsequent degeneration at L5-S1 were observed to have "deeply seated" L5 segments and two of the four did not, the authors could

conclude only that "deep seating" of L5 is not absolute protection. CONCLUSIONS: Fusions short of the sacrum did not have predictable long-term results. Those fused short of the sacrum who developed distal spinal degeneration had worse outcomes. Patients fused to the sacrum did not have a higher complication rate. A "deeply seated" L5 segment does not necessarily protect the L5-S1 disc.

AN 2001423552 MEDLINE <<LOGINID::20080804>>
DN PubMed ID: 11337635
TI Complications and results of long adult deformity fusions down to 14, 15, and the sacrum.
AU Eck K R; Bridwell K H; Ungacta F F; Riew K D; Lapp M A; Lenke L G; Baldus C; Blanke K
CS Department of Orthopaedic Surgery, Barnes-Jewish Hospital at Washington University, St. Louis, Missouri 63110, USA.
SO Spine, (2001 May 1) Vol. 26, No. 9, pp. E182-92.
Journal code: 7610646. ISSN: 0362-2436.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200107
ED Entered STN: 30 Jul 2001
Last Updated on STN: 30 Jul 2001
Entered Medline: 26 Jul 2001

L11 ANSWER 11 OF 15 MEDLINE on STN
TI CDH: preliminary report on a new anterior spinal instrumentation.
AB CDH (Cotrel-Dubousset-Hopf) instrumentation was developed with the aim of improving stability in ventral operation procedure and facilitating treatment of all anterior spinal diseases. The implantation of anterior plates and drawers, the use of a double-rod fixation within the implant in nonparallel directions, which provide an automatic locking mechanism against displacement, the prevention of dislocation of the cancellous bone srews, and the crosslink principle are its main characteristics. The device can be applied to the spine in accordance with its three-dimensional anatomy by any kind of force (distraction, compression, and rotation). Additional posterior instrumentation and postoperative external support are unnecessary in most cases because of improved stability. No reoperation was necessary following the mono- and multisegmental application of this method in 60 patients (28 with scoliosis, 12 with spondylodiscitis, 8 with primary tumors or isolated metastasis, 6 with fractures, 3 with failed back syndrome, 1 with kyphotic deformity, 1 with spondylolisthesis on two levels, and 1 with loss of correction after the dislocation of another posterior spinal instrumentation). Average blood loss was 950 ml; the average operating time was 3 h. In all, 16 monosegmental and 44 multisegmental procedures were carried out. In 25 patients, in particular those with paralytic scoliosis, a double-stage anterior and posterior spondylodesis was done.
AN 96022801 MEDLINE <<LOGINID::20080804>>
DN PubMed ID: 7552656
TI CDH: preliminary report on a new anterior spinal instrumentation.
AU Hopf A; Eysel P; Dubousset J
CS Orthopadische Universitatsklinik, Mainz, Germany.
SO European spine journal : official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society, (1995) Vol. 4, No. 3, pp. 194-9.
Journal code: 9301980. ISSN: 0940-6719.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)

LA English
FS Priority Journals
EM 199511
ED Entered STN: 27 Dec 1995
Last Updated on STN: 27 Dec 1995
Entered Medline: 1 Nov 1995